

REMARKS

This responds to the Office Action dated March 22, 2006, and the references cited therewith.

Claims 15 and 26 are amended. Claims 19, 29, 34, and 36 have been previously cancelled. Claims 15-18, 20-28, 30-33, 35, and 37 are now pending in this application.

§102 and §103 Rejection of the Claims

Claims 15-33, 35 and 37 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Florio et al. (U.S. Patent No. 6,512,953). Claims 18 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Florio et al. (U.S. Patent No. 6,512,953) in view of Sun et al. (U.S. Patent No. 5,755,739). The rejections are traversed and reconsideration is respectfully requested.

As best understood, the Florio reference describes a device and method for detecting capture during biventricular stimulation using intracardiac electrograms in which only three situations are distinguished: no capture, single-chamber capture, and biventricular capture (See, e.g., the abstract; blocks 195-197 of Fig. 7; and col. 14, lines 49-59). Applicant finds no teaching or suggestion in Florio for distinguishing between right ventricle-only and left ventricle-only capture based upon electrogram morphology. Rather, it is assumed that, for the particular pacing configuration used in the Florio device, a loss of capture in only one chamber during biventricular pacing will always be a loss of capture in the left ventricle (See, e.g., col. 13, lines 16-44). Claims 15 and 26 recite a system and method, respectively, in which a test depolarization waveform is compared with three different templates in order to distinguish between four situations during pacing with first and second pacing channels. In the case of biventricular pacing, the claimed system and method would distinguish between four situations: no capture, biventricular capture, left ventricle-only capture, and right ventricle-only capture. The Florio reference neither teaches nor suggests distinguishing between left ventricle-only capture, and right ventricle-only capture and actually teaches away from applicant's claimed invention by assuming that single chamber capture during biventricular pacing will always or typically be right ventricle-only capture. Furthermore, claims 15 and 26 as amended herein

recite system elements and method steps in which separate first channel and second channel templates are generated. In the case of biventricular pacing, these templates would be generated by recording electrograms during left ventricle-only and right ventricle-only pacing modes, and no discussion of these modes appears in Florio. The device described in Florio uses only one pulse generator to deliver stimulation pulses to right ventricular and left ventricular leads that are tied together with a bifurcated connector (See Fig. 2 and col. 12, lines 12-20). Florio only discusses acquiring biventricular and single-chamber capture characteristics by decreasing the pulse energy applied to both the right ventricular and left ventricular leads (See col. 14, lines 24-34). Applicant thus finds no teaching or suggestion in Florio for distinguishing between right ventricle-only and left ventricle-only capture nor for the generation of the needed right ventricle-only and left ventricle-only templates. Applicant respectfully submits that the recitations of claims 15 and 26 are neither anticipated nor made obvious by Florio or the other references of record.

Dependent claims 16-18, 20-25, 27-28, 30-33, 35, and 37 add additional limitations relating to the subject matter recited by claim 15 or 26 for which applicant finds no teaching or suggestion in the prior art of record. In particular, claims 21-25, 31-33, 35, and 37 recite limitations relating to determining a capture threshold for the first and second pacing channels by separately varying the pulse energy of the first and second pacing channels as capture verification is performed. As aforesaid, the particular device discussed in Florio with respect to capture verification uses only one pulse generator that delivers pacing pulses to right ventricular and left ventricular leads tied together and has no capability for separately adjusting the pulse energy applied to the right and left ventricles. Although Florio does make mention of a device employing multiple pulse generators (col. 8, lines 22-27), there is no discussion as to how multiple pulse generators would be employed in the context of capture verification or pacing threshold determination. Applicant respectfully submits that the recitations of claims 16-18, 20-25, 27-28, 30-33, 35, and 37 are neither anticipated nor made obvious by Florio or the other references of record.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (847) 432-7302 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

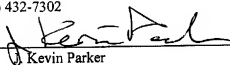
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